

In the Claims

The claims have been amended as follows:

1. (currently amended) A filter housing comprising:
 - a sump for enclosing a filter cartridge within said filter housing;
 - a head having an inlet and an outlet in fluid communication with the filter cartridge, said head removably attached to said sump;
 - a radial sealing means for providing a liquid-tight seal between said sump and said head;
 - a pressure relief mechanism for depressurizing said sump prior to removing said sump from said head;
 - at least one radially sliding clamp for attaching said sump to said head, said clamp having at least one angled edge; and
 - a radially sliding clamp actuator including a linear cam in sliding mechanical communication with said at least one clamp, said clamp actuator having at least one angled edge complementary to, and in sliding mechanical communication with, said at least one clamp angled edge, such that when said clamp actuator is directed radially inward said at least one clamp is directed radially outward to release said head.
2. (original) A filter housing of claim 1 wherein said means for providing a liquid-tight seal between said sump and said head is attached to said head.
3. (original) A filter housing of claim 1 wherein said radial sealing means comprises an O-ring, a quad seal, or a gasket.

4. (original) A filter housing of claim 1 wherein said at least one clamp is driven with one or more springs.
5. (previously presented) A filter housing of claim 1 wherein said at least one clamp is positioned in partial circumferential contact in a horizontal plane around corresponding rims of said head and said sump.
6. Cancelled.
7. Cancelled.
8. (original) A filter housing of claim 1 further including a safety mechanism that is responsive to a pressure inside said filter housing.
9. (previously presented) A filter housing of claim 8 wherein said safety mechanism locks said clamp actuator to prevent opening said at least one clamp when said filter housing is pressurized.
10. (original) A filter housing of claim 1 further including means for locking said at least one clamp in an open position to facilitate removal of said sump or locking said at least one clamp in a closed position when said sump is attached to said head.
11. Cancelled.

12. (original) A filter housing of claim 1 further including a filter cartridge having one or more sealing means with a stub end cap, wherein a filtered fluid flows through the stub end cap and out through the outlet of said head.

13. (currently amended) A filter housing comprising:

a sump for enclosing a filter within said filter housing;

a head removably attached to said sump, said head having an inlet and an outlet in fluid communication with a filter cartridge;

a radial sealing means for providing a liquid-tight seal between said sump and said head;

a pressure relief mechanism for depressurizing said sump prior to removing said sump from said head;

at least two clamps in peripheral arrangement for attaching said head and said sump, said at least two clamps having a planar portion thereof; and

a radial linear cam in sliding mechanical communication with said at least two clamps at an interface with the planar portion of said at least two clamps such that upon ~~actuating~~ radial activation of said linear cam, said linear cam moves in a first radial direction to move said at least two clamps in a second radial direction perpendicular to said first direction, such that said at least two clamps are in an open position to facilitate removal of said sump or to a closed position to attach said sump to said head.

14. (original) A filter housing of claim 13 wherein said radial sealing means comprises an O-ring, a quad seal, or a gasket.

15. (currently amended) A filter housing of claim 13 wherein said at least two clamps are driven with one or more springs, and said at least two clamps are separated by said radial linear cam.

16. (original) A filter housing of claim 13 further including a safety mechanism that is responsive to a pressure inside said filter housing.

17. (previously presented) A filter housing of claim 16 wherein said safety mechanism locks a clamp actuating mechanism to prevent opening said at least two clamps when said filter housing is pressurized.

18. (currently amended) A filter housing comprising:

a sump for enclosing a filter within said filter housing;

a head removably attached to said sump, said head having an inlet and an outlet in fluid communication with the filter cartridge;

a radial sealing means for providing a liquid-tight seal between said sump and said head;

a pressure relief mechanism for depressurizing said sump prior to removing said sump from said head;

at least two clamps under a tension load in peripheral arrangement for attaching said head and said sump, said at least two clamps having a planar portion thereof; and

a clamp actuating mechanism comprising a radial linear cam in conjunction with a rotary cam, said rotary cam comprising:

a slotted tab including:

a center slot fitted to an axial pin extending from a top surface of said head, said center slot in a radial direction; and

a second slot fitted to a second pin off-axis from said axial pin, said second slot angled relative to said center slot in a non-radial direction, such that upon radially linear movement of said slotted tab and said center slot relative to said axial pin, said second slot is moved while in slidable communication with said second pin, causing said rotary cam to rotate;

a first linear track and a second linear track equidistant from said center slot and being parallel to one another; and

tracking pins extending from said clamps top surface traveling within each of said linear tracks when said rotary cam is engaged when said linear cam is moved in a radially linear direction, wherein the radially linear motion of the linear cam is translated to rotational motion of the rotary cam to open said at least two clamps when said linear cam is moved along a plane.

19. (original) A filter housing of claim 18 wherein said radial sealing means comprises an O-ring, a quad seal, or a gasket.

20. (original) A filter housing of claim 18 further including a safety mechanism that is responsive to a pressure inside said filter housing.

21. (previously presented) The filter housing of claim 1 wherein said clamp actuator includes said linear cam having a push button end, a stub nose distal from said push button, and an angled portion, such that said linear cam translates motion of a first direction into motion in a second direction perpendicular to said first direction, in order to actuate said at least one clamp in an open or closed position through direct translation.

22. (previously presented) The filter housing of claim 13 wherein said clamp actuator includes said linear cam having a push button end, a stub nose distal from said push button, and an angled portion, such that said linear cam translates motion in said first direction into motion in said second direction perpendicular to said first direction, in order to actuate said at least two clamps in an open or closed position through direct translation.

23. (new) A filter housing comprising:

- a sump for enclosing a filter cartridge within said filter housing;

- a head having an inlet and an outlet in fluid communication with the filter cartridge,
said head removably attached to said sump;

- a radial sealing means for providing a liquid-tight seal between said sump and said head;

- a pressure relief mechanism for depressurizing said sump prior to removing said sump from said head; and

a clamp actuator comprising a rotary cam in conjunction with a linear cam, said rotary cam comprising:

- a slotted tab including:

a first slot slidably fitted to a center axial pin extending from a top surface of said head;

a second slot slidably fitted to a pin off-axis from said center axial pin, said second slot angled relative to said first slot, such that said rotary cam is engaged when said slotted tab is moved in a radial, linear direction;

a first linear track and a second linear track equidistant from said center slot and being parallel to one another; and

tracking pins extending from said clamps top surface traveling within each of said linear tracks when said rotary cam is engaged when said linear cam is moved in said radial, linear direction.